

WHAT IS CLAIMED IS:

1. A printing apparatus which prints by relatively moving a printhead on a printing medium, comprising:

control means for feedback-controlling a carrier  
5 supporting the printhead by using an ideal speed and an ideal position;

carrier position detection means for detecting carrier position information to be referred to by said control means;

10 carrier speed detection means for detecting carrier speed information to be referred to by said control means; and

speed estimation means for calculating an estimated speed at a predetermined ratio by using the  
15 ideal speed referred to by said control means.

2. The apparatus according to claim 1, wherein said control means does not refer to, as speed information used for the feedback control, the carrier speed information detected by said carrier speed detection  
20 means, and refers to the ideal speed or the estimated speed until the carrier moves by a predetermined amount after start of operation.

3. The apparatus according to claim 1, wherein said control means does not refer to, as speed information  
25 used for the feedback control, the carrier speed information detected by said carrier speed detection means, and refers to the estimated speed as 0 until the

carrier moves by a predetermined amount after start of operation.

4. The apparatus according to claim 1, wherein an independent value can be selected for each ideal speed  
5 as the predetermined ratio used for calculation by said speed estimation means.

5. The apparatus according to claim 4, wherein the predetermined ratio used for calculation by said speed estimation means is set to a value which makes a  
10 difference between the estimated speed or the carrier speed information and the ideal speed fall within a predetermined range.

6. A method of controlling a printing apparatus which prints by relatively moving a printhead on a  
15 printing medium, comprising:

a control step of feedback-controlling a carrier supporting the printhead by using an ideal speed and an ideal position;

a carrier position detection step of detecting  
20 carrier position information to be referred to in the control step;

a carrier speed detection step of detecting carrier speed information to be referred to in the control step; and

25 a speed estimation step of calculating an estimated speed at a predetermined ratio by using the ideal speed referred to in the control step.

7. A printing apparatus which prints by relatively moving a carrier supporting a printhead on a printing medium, comprising:

encoder means for detecting carrier speed  
5 information and carrier position information;  
control means for feedback controlling the carrier by using a predetermined speed profile; and  
storing means for storing speed information corresponding to moving amount of the carrier,  
10 wherein said control means feedback-controls the carrier by using the speed information stored in the storing means without referring the speed information detected by the encoder means until the carrier moves in a predetermined moving amount from the start of  
15 movement, and feedback-controls the carrier by using the speed information detected by the encoder means after the moving amount of the carrier becomes greater than the predetermined moving amount.

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